

Amendments to the Claims

Please CANCEL claims 19-33 without prejudice to or disclaimer of the subject matter recited therein.

Please AMEND claim 1 and ADD new claims 34-36 as follows. All of the claims currently pending in this application, including those not currently being amended, are reproduced below in accordance with U. S. Patent and Trademark Office practice.

1. (Currently Amended) An apparatus for cutting a product, comprising:

a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface; and

a slitter assembly positioned relative to said conveyor assembly and coupled thereto, to slit the product into strips as the product is conveyed in the feed direction, said slitter assembly comprising a plurality of cutting elements arranged in a V shape having an open end and a pointed end, as viewed in a direction substantially normal to the conveyance surface, said cutting elements overlapping one another in the feed direction,

wherein the open end of the V shape is oriented in a leading direction and the pointed end of the V shape is oriented in a trailing direction, such that a product with a unitary, intact width may be fed to the open end of the V shape in such a manner that its intact width spans at least the distance between the cutting elements at the open end of the V shape.

2. (Original) The apparatus according to claim 1, wherein an opening end of the V shape is oriented in a leading direction and the pointed end of the V shape is oriented in a trailing direction, such that the product will be fed to the slitter assembly from the open end of the V shape by said conveyor assembly.

3. (Original) The apparatus according to claim 1, wherein said conveyor assembly comprises a belt and a belt support frame located beneath said belt, and wherein said cutting elements are mounted above said belt so as to ride against and slightly depress said belt into recesses formed in said belt support frame, thereby ensuring that the product is slit completely through by said cutting elements.

4. (Original) The apparatus according to claim 1, wherein each of said plurality of cutting elements comprises a circular blade.

5. (Original) The apparatus according to claim 4, wherein said slitter assembly further comprises drive means, for driving said circular blades such that the tangential velocity of the outer periphery of said circular blades is substantially greater than the velocity at which the product is conveyed.

6. (Original) The apparatus according to claim 5, wherein said slitter assembly further comprises a peeler foot disposed above the conveyance surface, which biases the product toward

the conveyance surface and prevents the product from adhering to, and riding-up, the sides of said circular blades.

7. (Original) The apparatus according to claim 4, wherein said slitter assembly further comprises a slitter frame, a slitter arm coupled to said slitter frame, a leading slitter shaft and a trailing slitter shaft both rotatably supported by said slitter frame, and at least one intermediate slitter shaft rotatably supported by said slitter arm, wherein each of said slitter shafts extends transversely to the feed direction, and wherein at least one of said circular blades is rotatably supported on each of said slitter shafts.

8. (Original) The apparatus according to claim 7, wherein said slitter arm is pivotable relative to said slitter frame to raise said at least one intermediate slitter shaft and said at least one circular blade supported thereon vertically out of contact with the product, thereby allowing for selective adjustment of the width of the strips of product during operation of the apparatus.

9. (Original) The apparatus according to claim 8, wherein said leading and trailing slitter shafts are fixed against vertical movement.

10. (Original) The apparatus according to claim 9, wherein said at least one intermediate slitter shaft comprises a pair of intermediate slitter shafts.

11. (Original) The apparatus according to claim 9, wherein said at least one intermediate slitter shaft comprises a trio of intermediate slitter shafts.
12. (Original) The apparatus according to claim 4, wherein said plurality of circular blades comprises a first pair of coaxial circular blades spaced apart in a direction transverse to the feed direction by a first distance, and a second pair of coaxial circular blades spaced in the direction transverse to the feed direction by a second distance, which is less than the first distance, and offset in the feed direction from said first pair of circular blades.
13. (Original) The apparatus according to claim 12, wherein said plurality of circular blades further comprises a third pair of coaxial circular blades spaced apart in the direction transverse to the feed direction by a third distance, which is less than the second distance, and offset in the feed direction from said second pair of circular blades.
14. (Original) The apparatus according to claim 13, wherein said plurality of circular blades further comprises a fourth pair of coaxial circular blades spaced apart in the direction transverse to the feed direction by a fourth distance, which is less than the third distance, and offset in the feed direction from said third pair of circular blades.
15. (Original) The apparatus according to claim 14, wherein said plurality of circular blades further comprises a central circular blade positioned such that a plane defined by said central

circular blade intersects the midpoint of the first, second, third, and fourth distances, and is offset in the feed direction from said fourth pair of circular blades.

16. (Original) The apparatus according to claim 1, further comprising a chopping assembly positioned downstream of said slitter assembly to sever the strips of product substantially transversely to the feed direction.

17. (Original) The apparatus according to claim 16, wherein said chopping assembly comprises an elongated blade positioned above said conveyance surface substantially transverse to the feed direction, said elongated blade being movable in an elliptical cutting motion about an axis substantially parallel to the length of said elongated blade, such that the elongated blade has a component in the downward direction to sever the strips of product, and a component in the feed direction to push the severed pieces of product in the feed direction.

18. (Original) The apparatus according to claim 17, wherein said elongated blade is supported at each end by a drive rod, each said drive rod having one end coupled to an elliptical drive wheel and the other end slidably received in a rod support, which is fixed relative to said conveyor assembly.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (New) An apparatus for cutting a product, comprising:

a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface; and

a slitter assembly positioned relative to said conveyor assembly and coupled thereto, to slit the product into strips as the product is conveyed in the feed direction, said slitter assembly comprising a plurality of cutting elements arranged in a V shape, as viewed in a direction substantially normal to the conveyance surface, said cutting elements overlapping one another in the feed direction,

wherein said conveyor assembly comprises a belt and a belt support frame located beneath said belt, and wherein said cutting elements are mounted above said belt so as to ride against and slightly depress said belt into recesses formed in said belt support frame, thereby ensuring that the product is slit completely through by said cutting elements.

35. (New) An apparatus for cutting a product, comprising:

a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface; and

a slitter assembly positioned relative to said conveyor assembly and coupled thereto, to slit the product into strips as the product is conveyed in the feed direction, said slitter assembly including a plurality of cutting elements arranged in a V shape, as viewed in a direction substantially normal to the conveyance surface, with said cutting elements each comprising a circular blade and overlapping one another in the feed direction, said slitter assembly further including a slitter frame, a slitter arm coupled to said slitter frame, a leading slitter shaft and a trailing slitter shaft both rotatably supported by said slitter frame, and at least one intermediate slitter shaft rotatably supported by said slitter arm, wherein each of said slitter shafts extends transversely to the feed direction, and at least one of said circular blades is rotatably supported on each of said slitter shafts, and wherein said slitter arm is pivotable relative to said slitter frame to raise said at least one intermediate slitter shaft and said at least one circular blade supported thereon vertically out of contact with the product, thereby allowing for selective adjustment of the width of the strips of product during operation of the apparatus.

36. (New) An apparatus for cutting a product, comprising:

a conveyor assembly that conveys the product in a feed direction and defines a conveyance surface;

a slitter assembly positioned relative to said conveyor assembly and coupled thereto, to slit the product into strips as the product is conveyed in the feed direction, said slitter assembly comprising a plurality of cutting elements arranged in a V shape, as viewed in a direction substantially normal to the conveyance surface, said cutting elements overlapping one another in the feed direction; and

a chopping assembly positioned downstream of said slitter assembly to sever the strips of product substantially transversely to the feed direction, wherein said chopping assembly comprises an elongated blade positioned above said conveyance surface substantially transverse to the feed direction, said elongated blade being movable in an elliptical cutting motion about an axis substantially parallel to the length of said elongated blade, such that the elongated blade has a component in the downward direction to sever the strips of product, and a component in the feed direction to push the severed pieces of product in the feed direction.